

Claims

1. (currently amended) A [[plurality of non-human vertebrate animal cell line comprising]] germline-competent black B6 ES cell line form C57BL/6 mouse strain [[C57 ES cell lines, including IC1, or IC2]] consisting of IC1.
2. (currently amended) A [[plurality of non-human vertebrate animal cell line comprising]] germline-competent white albino B6 line from C57BL/6J-Tyr^{c-23} mouse strain [[C57 ES cell lines, including IAC1, IAC2, IAC3, IAC4, IAC5, IAC6, IAC7 or IAC8]] consisting of IAC1.
3. (currently amended) A method of generating a chimeric mouse for producing genetically modified [[non-human vertebrate animal]] C57 mice, wherein said [[animal is produced by crossing the same strain of the animal with each other]] mouse is produced by introducing C57 ES cells with marker genes into blastocysts from the same color strain, and transplanting said blastocysts into a pseudopregnant animal to produce the chimeric mouse which can not been seen by coat color.
4. (currently amended) A method of [[producing a genetically modified non-human animal]] introducing black B6 ES cells modified with marker genes into albino B6 blastocysts to produce a black into white combination, said method comprising the steps of:
 - a) introducing genetic modification in black B6 ES cells to produce modified ES cells,
 - b) introducing said modified ES cells into blastocysts from an albino C57 strain

[[the same strain or substrains]] and transplanting said blastocysts into a pseudopregnant animal,

- c) allowing said blastocyst to develop into chimeras identified by coat color [[and screening the chimerism by PCR and Southern Blot]], and
- d) breeding said chimeras to produce offspring.

5. (currently amended) A method of introducing albino B6 ES cells into black B6 blastocysts to produce a white into black combination [[making a genetically modified C57 mouse model]], said method comprising the steps of:

- a) introducing genetic modification in [[mouse]] albino B6 ES cells to produce modified ES cells,
- b) introducing said modified B6 ES cells into [[mouse]] blastocysts from [[the same strain or substrains]] black C57 strain and transplanting said blastocysts into a pseudopregnant mouse,
- c) allowing said blastocyst to develop into [[a chimeric mouse and screening the chimerism by PCR and Southern Blot]] chimeras identified by coat color, and
- d) breeding said [[chimeric mouse]] chimeras to produce [[genetically modified]] offspring.

6. (currently amended) The method of [[4 wherein C57 ES cells are introduced into C57 black blastocysts to produce a black in black combination]] claim 3 wherein the chimerism is identified by PCR and Southern Blot, said chimerism being not identifiable by coar color when C57 ES cells are injected into C57 blastocysts of the same color strain.

7. (currently amended) The method of claim 3 ^{[[4]]} wherein ^{[[genetically modified]]} black B6 ES cells are introduced into ^{[[albino]]} black B6 ^{[[C57]]} blastocysts to produce a black ^{[[in white]]} into black combination.
8. (currently amended) The method of claim ^{[[4]]} 6 wherein ^{[[albino]]} black B6 ^{[[C57]]} ES cells are introduced into black B6 ^{[[C57]]} blastocysts to produce a ^{[[white in]]} black into black combination.
9. (cancelled)
10. (cancelled)
11. (cancelled)